Easy Steps to BETTER TILLAGE for BETTER YIELDS

Source: www.sunflowermfg.com

N^o matter what your tillage goal is — residue management, seedbed preparation or preparing for the next crop in a rotation — a properly adjusted and properly used tillage implement will result in fewer trips to the field, better management of the quality and performance of the next crop, and hopefully lower potential erosion.

Properly pair the tractor and tillage tool. Size does matter, so don't overpower the tool. A general rule is 8 to 10 HP per foot to pull a tandem disc harrow at 5 to 6 mph. While the design of some tillage tools allows faster ground speeds, going too fast is an easy way to create ridges and furrows. It also can cause tillage tools to bounce, producing an inconsistent tillage depth.

Adjusting the tongue to match drawbar height is important to keep the tillage tool level and moving smoothly through the field, optimizing fuel use and minimizing wear on parts such as the drawbar, level lift assembly and other components that can receive unneeded down pressure if the tool is operated either nose down or tail down. A straight line of draft to the tool is the goal.

Purge air from the hydraulic lines to ensure the wings stay level with the machine's center section. With the implement's hydraulics connected to the tractor, simply raise and lower the implement several times to allow the system to cycle fully. Because air is more easily compressed than oil, air in the hydraulic lines can allow the wings to sag.

Level the tool from side to side and from front to back to ensure it will work the soil at a consistent, even depth, without gouging or ridging. Keeping the tool level also helps optimize fuel efficiency, reduces wear on the implement, and allows the machine to handle crop residue with less bunching or plugging. Wings and center frames should operate at the same height from side to side. To check these, lower the tool to the ground, stopping the descent when the disc blades are close to the soil but not touching it. Use a tape to measure the distance from the bottom of the frame to the center of the pivot pin on the walking tandem or the top of the wheel spindle if a single or dual wheel is present.



The measurements should be the same. Always check the center-section wheels left and right to ensure the integrity of the center lift assembly. Using this same method, set the wings at identical depths by measuring from the bottom of the frame to the top of the wheel spindle or pivot pin of the walking tandem. If the wheels on the wings are smaller than the main transport wheels, adjust your measurements accordingly. Adjust the fore/aft level so the front and rear blades are of equal distance from the ground. This is a preliminary adjustment. Once in the field, confirm the fore/aft level after traveling several hundred feet with the tool lowered in the working position. Check the soil at the center rear of the tool where the soil is returned by the rear gangs. A tool that is level front to rear will produce a complete and level fill of the valley cut by the front gangs. If soil forms a valley, the rear of the tool needs to be lowered. If a ridge is present, the rear of the tool is too deep, and the tool should be adjusted to lower the front of the machine. (Continued on page 2...)





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Set the tillage depth to your field conditions and the job at hand. A general rule of thumb for tillage depth of an implement such as a disc harrow is 25 percent of the blade diameter. Thus, a disc harrow with 24-inch blades should be set to till no more than 6 inches deep. Implements such as Sunflower disc harrows have a single-point depth control with a convenient hand crank that adjusts the depth in one-half-inch increments each time the handle is rotated one turn.

Follow these steps to achieve the maximum depth of a disc harrow: Operate the tool with the wheels fully retracted; yes, tires off the ground. Stop after working the soil for a few hundred feet and allowing the disc to achieve maximum depth. Lower the wheels until the tool's frame begins to lift. At this point, release the valve stopping the ascent of the frame, and stop the tractor but leave the tool in the ground. Adjust the single-point depth-control crank until the striker plate contacts the hydraulic poppet valve. Raise the tool until the audible click of the poppet valve engages, which stops the oil flow. The implement's maximum depth is now set, and control of the tool is retained.

Gauge wheels are especially important on flexible tillage tools to prevent front-wing corners from gouging. When set correctly, these wheels should move slightly side to side when kicked. A tape measure can be used to ensure the setting for both gauge wheels is consistent. The gauge wheel adjustment is the final step in the field adjustment process.

Altorfer is now a dealer for Sunflower tillage equipment, with inventory available in fall 2014! For more information, contact your Altorfer Ag Sales Representative.